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HOWARD A. KINGSFORD

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FISH & RICHARDSON PC
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

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1 RECORD OF ORAL HEARING

2 UNITED STATES PATENT AND TRADEMARK OFFICE

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6 BEFORE THE BOARD OF PATENT APPEALS
7 AND INTERFERENCES
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10 Ex parte HOWARD A. KINGSFORD
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13 Appeal 2007-1847
14 Application 09/440,384
15 Technology Center 1700
16
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18 Oral Hearing Held: December 11, 2008
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22 Before BRADLEY R. GARRIS, ADRIENE LEPIANE HANLON, and
23 CHARLES F. WARREN, Administrative Patent Judges
24

25 ON BEHALF OF THE APPELLANT:

26 James Babineau, Esquire
27 FISH & RICHARDSON, PC
28 P.O. Box 1022
29 Minneapolis, MN 55440-1022
30

1 MR. BABINEAU: My name is Jim Babineau. I'm sitting in
2 Austin, Texas. I'm an attorney for the, the applicant. In our Boston office is
3 Mr. Howard Kingsford, the named inventor, and along with my colleague,
4 Mr. Michael Hamlin, who is also a patent attorney and associate of mine.

5 JUDGE GARRIS: Very good. Well, welcome, gentlemen, to the
6 Board. As I said, you have about 20 minutes, please begin.

7 MR. BABINEAU: Okay. Well, our, our -- as is typical in these
8 cases, our, our main points have been outlined in our briefs, but we wanted
9 to take the opportunity to speak with the Board and to particularly entertain
10 any questions or concerns that you might have regarding the patentability of
11 the claims. Our main point is directed to whether or not the Reed reference
12 anticipates the claims. The examiner and, and we are both in agreement that
13 the, the limitation at the end of Claim 19, which is that the entire barbed
14 structure which includes the -- I'm reading from the claim here, that the, that
15 the penetrating element and the barb extending from the outer surface are
16 formed I think integrally from a single plastic resin is considered to be a
17 structural limitation. We are not advancing that as a method of claim or
18 method -- step in a product claim.

19 However, the examiner finds that this limitation is met by the Reed
20 reference because the Reed reference discloses making this out of a plastic
21 material. Our contention has been that the Reed reference does not. And
22 combined with the skill of the -- a person of ordinary skill in the art at the
23 time of the invention, but not as enabled what we are claiming, the examiner
24 has taken the position that, you know, Reed presents a method and that's all
25 Reed had to present was a method of making his. He didn't have to present
26 every method. And our position is that the examiner has conflated the

1 enablement requirement of Reed for, for enabling his invention with the
2 enablement requirement as a reference for enabling the claimed invention.
3 We do not believe that Reed enabled a structure in which the entire fastening
4 element is formed of a single resin because the only way possible of making
5 that at the time, at least as disclosed by Reed, was this photochemical
6 etching process that required there to be a different, a different character of
7 the head than the underlying resin or material. So, we had introduced a
8 declaration to that point by someone of skill in the art during prosecution
9 which was not really entertained by the examiner.

10 So, with respect to the, the broad claim, that's been our position, and
11 we certainly would, would appreciate the opportunity to respond to any
12 concerns that you might have over our position.

13 JUDGE GARRIS: Well, the first question that comes to mind is --
14 relates to the examiner's view that Reed contains a disclosure of a single
15 material for, for making the projection or the penetrating element, to use
16 your claim phrase. Do you agree or disagree with the examiner's view on
17 that matter?

18 MR. BABINEAU: Only in that the, the phrase that the examiner
19 refers to in Reed, we believe in taken as a whole with the reference, would
20 not lead someone -- have led someone of ordinary skill to believe that that
21 meant taking a single resin and from that resin forming the entire structure.
22 We believe that the phrase as cited by the examiner is taken in that sense out
23 of context as applied to our, our invention. And, again, even if Reed were to
24 have said -- he were to have described the structure we are claiming, we still
25 would maintain that it would not be applicable as a 102 reference in not

1 enabling that structure to be made. Similar to the way that Jules Verne
2 would not have anticipated the patent for the submarine.

3 JUDGE GARRIS: Let's look at the specific disclosure in Reed that
4 you and the examiner seem to agree does describe the use of a single
5 material. What part of that disclosure should we be looking at now?

6 MR. BABINEAU: Well, again, to, to be clear, my point was we don't
7 believe that Reed does disclose the making of a -- or excuse me, disclose a
8 product that is made out of a single material. But to take a point that, that
9 the disclosure that the examiner and we have been in contention over, it is
10 found in column 3 of the Reed reference. And beginning at line 39, Reed
11 states the base, head, and support, these are all of the elements, for example,
12 seen in Figure 2 of the Reed reference, 18, 20, and 22 are made of a rigid
13 material. The rigid material can be, for example, a metal, ceramic, plastic,
14 composite, or an alloy which is quite a broad wish list of things that you
15 could possibly make this out of. The metal could be steel, the ceramic could
16 be aluminum oxide, the composite material could be graphite-fiber-matrix
17 composite, and the plastic polysulfone. Again, none of these materials are
18 discussed any further with respect to how you might go about making
19 something of this size out of those materials.

20 Preferably, the base and support are made of silicon and the head of
21 silicon dioxide which is the example of his invention that he does enable by
22 use of a photochemical etching process. We do --

23 JUDGE GARRIS: Well, let's consider for, let's consider for a moment
24 this disclosure of Reed. Let's assume for purposes of our discussion that one
25 skilled in the art would interpret this disclosure as conveying that the base,
26 head, and support are made of a rigid plastic, specifically polysulfone, in

1 other words, the same material. Is it your contention then that one skilled in
2 the art would not be capable of making the Reed device, and specifically, the
3 base, head, and support, of the polysulfone material?

4 MR. BABINEAU: Without having altered one of the materials to, to
5 have a greater susceptibility to photochemical etching, our position would be
6 that no, one of ordinary skill in the art would not have been able to make our
7 invention out of polysulfone based on the Reed reference.

8 JUDGE GARRIS: What evidence do you have to support that
9 position?

10 MR. BABINEAU: We submitted a declaration by -- I'll pull up the
11 declaration here -- by Mr. Andy Harvey, who has been working in materials
12 and manufacturing research and, and design since the mid-50's, who is --
13 claims to be a -- he is a consultant we actually -- the, the assignee of this
14 particular invention is familiar with Mr. Harvey in having -- he has provided
15 consulting services from time to time in the area of manufacturing for resin,
16 plastic processing technologies. And he is also a prolific inventor, and he
17 reviewed the
18 Reed reference to determine whether or not someone of skill could have
19 taken the Reed reference and employed the, the techniques there to produce
20 something that was made from a single resin. If I could -- he, he describes,
21 again, the process as he understands it from the Reed reference. And the
22 conclusion in paragraph 7 is based on his review of this disclosure and his
23 experience in techniques for shaping and forming plastics. He concludes
24 that this patent in no way teaches or suggests a technique for manufacturing
25 a barb in which these elements all were formed integrally of a single plastic
26 resin.

1 JUDGE GARRIS: Yes, I've read that paragraph 7. I have it in front
2 of me right now, but I guess my question would be why would one skilled in
3 the art not possess the knowledge of how to prepare the base, head, and the
4 extremity portion integrally from a single plastic polysulfone. I understand
5 that the techniques disclosed by the Reed patent are, in fact -- I understand --

6 MR. BABINEAU: Excuse me, we have someone entering the room
7 unexpectedly, I'm sorry.

8 JUDGE GARRIS: That's okay. I understand your point that the
9 technique disclosed by Reed is, is one that relies on etching and what not
10 and requires different materials, but the, the person of ordinary skill in this
11 art is aware of -- has knowledge beyond what Reed specifically discloses.
12 And my question to you is why would one skilled in this art not possess the
13 knowledge of how to prepare Reed's device integrally from a single
14 polysulfone plastic, such as, for example, by injection molding or any other
15 particularly well-known technique?

16 MR. BABINEAU: Because of the, of the very small size of the
17 structures to be formed here, indeed, even the -- it is not even our contention
18 that the shapes of the structures shown in Reed could necessarily even be
19 formed by an injection molding process. The assignee of this invention, like
20 Mr. Kingsford's employer, has been involved for quite some time in the
21 molding of very, very small components. Traditional hook fasteners that are
22 used in hooking and fastening have been made for over 20 years by the
23 technique of injection molding and, and very rapid processing. However, it
24 took, it took Mr. Kingsford understanding that in order to obtain the sizes
25 that we're talking about, a radically different type of projection would need

1 to be made that would allow demolding of such -- filling and demolding of
2 such small cavities.

3 In fact, if you look in Mr. Kingsford's disclosure and see the, the
4 fastener elements that he has, has disclosed, you see that these have a main
5 shank and a very small barb extending from the side. And it wasn't until this
6 shape was -- or this type of element was conceived that even he considered
7 that you could make something of such small size by filling plastic -- or
8 filling cavities, for example, as a method of making something out of a solid
9 resin. To our knowledge, there has not been disclosed any other method of
10 making such small elements out of a single resin other than the method that
11 now Mr. Kingsford has disclosed.

12 JUDGE GARRIS: What aspect of that disclosed method is, to use
13 your phrase, radically different from what was done in the prior art?

14 MR. BABINEAU: Well, the -- again, approaching this from the
15 position of someone of ordinary skill back when this application was filed in
16 1999 takes some doing now. But at the time, the, the types of things that
17 Mr. Kingsford was associated with, and I, I will, I will certainly let Mr.
18 Kingsford speak up and, and discuss this as well, involved moulding of hook
19 fasteners in the size range of, for example, 15,000's of an inch in height.
20 And the objective in, in all of that was in how to engage a fibrous material,
21 for example, a loop material, and the types of shapes that were involved in
22 order to engage such loops and also be demoldable from cavities was quite,
23 was quite a lot of science and effort that went into developing that and, and
24 refining that over the years.

25 But simply at the time, even within Mr. Kingsford's company, it was,
26 it was quite some surprise that he would be able to, to do this at such small

1 scale and still to be able to pull a finished product out of the cavities. So, it,
2 it's a matter of having the pressure and viscosity to fill the cavities which is
3 no small feat with such small cavities. And also to retract -- pull the
4 solidified material from the cavities once it's done and have it retain a shape
5 that will allow it to resist extraction from the skin. This is not exactly the
6 same as moulding a, a smooth-walled tapering element. There needs to be a
7 barb. According to the invention as claimed in 19, there is a barb extending
8 laterally from the outer surface of, of the element and that needs to be
9 formed.

10 JUDGE GARRIS: I guess my question to you in response to your
11 comments is, again, whether we have in this record evidence that the
12 moulding technique used to produce the claimed invention is, in fact,
13 something that is unique and it overcomes problems that were not
14 recognized in the prior art. That it is, in fact, something that one having
15 ordinary skill in the art would not have been aware of or would not know
16 how to do. This all relates to the issue that you have based your argument
17 on as to whether one skilled in this art would or would not be enabled to
18 produce the Reed device from a single plastic material. In sum, is there such
19 evidence that shows the kinds of issues you've been discussing?

20 MR. BABINEAU: Well, of course, at this stage in the proceedings,
21 we are not able to present additional evidence before the Board other than
22 what we have presented to the examiner. If this case were to be sent back to
23 the examiner with respect to that question, we would certainly appreciate the
24 record being clear that, that the lack of that evidence was something that
25 was, was important to the Board and its decision with respect to the broad

1 claim and anticipation. We also while we have the Board's attention, there
2 are a number of other claims in this --

3 JUDGE WARREN: Counselor, this is Judge Warren. Before we
4 leave this issue, could you explain your position relative to your claim which
5 -- Claim 19 which really does not require any particular limitation on the
6 skin-penetrating barbs.

7 MR. BABINEAU: I'm sorry, sir, I could barely hear you. Could you
8 --

9 JUDGE WARREN: Could you explain your position relative to
10 Claim 19 which, as I understand the claim, does not have any physical
11 limitation on the size of the skin-penetrating barbs?

12 MR. BABINEAU: You're correct. Claim 19 does not have a
13 limitation on the size of the skin-penetrating barb. It only requires that one
14 extend from an outer surface of the skin-penetrating element. And in other
15 subclaims, it talks about there being multiple barbs, etc. The -- our position
16 has been that, that the, the exact dimensions of the barb, etc., were not -- that
17 the invention was not to be limited to that. It is true that the, the
18 embodiment that is shown in Howard Kingsford's application shows a, a
19 type, a type of barb and a size of barb that has been found to be useful, and
20 in particular to, to resist withdrawal from the skin. But we, we still maintain
21 that our invention, Mr. Kingsford's invention, was not enabled by the prior
22 art teachings of Reed regardless of the size of the barb.

23 JUDGE WARREN: Well, sir, if this invention of Mr. Reed is, is just
24 reflected in the application that's in the claim -- in the application before us -
25 - I'm sorry, not Mr. Reed, the appellant, did the appellant file an application
26 directed specifically to this process?

1 MR. BABINEAU: We have pending a divisional application directed
2 to the method.

3 JUDGE WARREN: To the method.

4 MR. BABINEAU: The method that you will, you will see in the
5 original priority document. I believe there are also claims to the method and
6 those were restricted from this case. I believe I have to go back and take a
7 look. That, that may not be, that, that may not be, be accurate as the
8 application was filed, but clearly, the method was disclosed and the method
9 is being presented in a divisional application.

10 JUDGE WARREN: Okay, thank you. Did you call that, did you call
11 that application to the attention of the Board?

12 MR. BABINEAU: Well, I'll have to go back and look. I don't know
13 that it was filed at the time that the appeal was filed. I, I apologize, sir --

14 JUDGE WARREN: Wait then, if that, that's the case, counselor, we
15 can find, we can find the application.

16 MR. BABINEAU: From my memory, I don't believe that, that that
17 application has been examined yet. I don't recall there being -- again, I'm
18 just speaking from memory now. We didn't anticipate needing to approach
19 the patenting of the method specifically because we, we still do maintain that
20 we have now enabled this particular structure that was not enabled in the
21 prior art.

22 While, while we're on these product claims, however, I, I would like
23 to also ask the Board to consider some of the other dependent claims that
24 have been rejected by the examiner as anticipated. For example, and I just
25 bring this up as an example, Claim 20 requires that the skin-penetrating
26 element intersects the sheet form backing to define a base and tapers

1 continuously from the base to the tip. And if you look at the Reed
2 disclosures, again, there's no disclosure of this type of structure in Reed even
3 in his sort of schematic representation in, in Figure 6 showing schematically
4 what he then produces in Figure 7 where he has a pointed tip. Based on his
5 photochemical etch process, there is no, there is no continuous tapering to
6 the base nor is that something that, that Reed would have even considered
7 given his, his technique and approach.

8 JUDGE GARRIS: Would you please tell us whether, in fact, Claim
9 20 was separately argued in your appeal brief? I'm looking for --

10 MR. BABINEAU: It was not separately argued in, in the brief, no,
11 sir. It was, it was part of the, the discussion of anticipation by Reed which
12 focused primarily on the -- on, on Claim 19 and the enablement issue.

13 JUDGE GARRIS: Well, we, we -- you will understand, we cannot
14 entertain arguments that were presented for the first time at an oral hearing.
15 It must have -- you're limited to only arguments that were actually presented
16 in your briefs. And you understand the reason for that.

17 MR. BABINEAU: Yes, sir, I understand that, I understand. I, I'm
18 just asking in your analysis and in your consideration of the claims and the
19 rejection specifically, that you, that you consider that. I'm not, I'm not going
20 to argue for it here.

21 JUDGE GARRIS: Well, it will not be considered if it has not been
22 argued on the record. I want to make that very clear. Our rules require this
23 because of the obvious reason. We need for the examiner to have an
24 opportunity to present his opposing view of the argument that you might
25 present for a claim, like Claim 20, for example. And so, we, we just can't

1 entertain a consideration of a dependent claim that's not been separately
2 argued in the briefs.

3 MR. BABINEAU: I understand.

4 JUDGE GARRIS: Is there any other claim you, you would care to
5 bring to our attention that has been --

6 MR. BABINEAU: Well, as, as briefed, we, we specifically discuss
7 Claim 19 which is what we've already discussed. We discussed with respect
8 to the dependent claims on obviousness, we discussed in the brief Claims 2,
9 3, and 22 and it's 5 through 9, 11, 12, and 18, and Claims 13, 14, and 15.
10 Again, these were claims in which the examiner added -- well, either -- I
11 shouldn't say that. With respect to the first, the first set of three claims, the
12 examiner cited In re Dailey
13 as -- and, and dismissed the claims as just directed to a change in shape.
14 And, and we, again, maintain that the shape features that are shown in those
15 claims, for example, Claim 2, cone-shaped body, are not as in In re Dailey,
16 lacking significance with respect to the, the objective of the invention, but,
17 but do -- but were disclosed and described as having a significance. And,
18 therefore, we, we would like to have those claims considered by the Board
19 as well.

20 JUDGE HANLON: What, what is the -- excuse me, what is the
21 significance of those shapes? In your brief, you refer to page 4, line 15 as an
22 example of the significance, and you don't discuss the significance in any
23 detail in the brief. I was just interested what that significance was.

24 MR. BABINEAU: Well, the, the significance of the shape is to, is to
25 enhance the penetrability of the skin as it's discussed in beginning in line 10
26 of page 4. And, and we have to remember here that, that Reed and the

1 shapes -- the types of shapes that he was going after was also considered -- it
2 was also trying to develop ways to attach to things that are not the type of
3 skin that you would imagine on the outer surface of the body that
4 was -- Mr. Kingsford was, was trying to attach to, but attaching directly to
5 organs and to corneal surfaces and these sorts of things. And so the -- what
6 Mr. Kingsford had found was that this particular cone shape, cone shape
7 enhanced the ability to, to penetrate into what is actually a very, you know,
8 tough layer of outer skin.

9 So -- plus this, this really does help to facilitate the moulding of the, of these
10 elements out of a single resin which, again, was something that -- again,
11 we're not, we're not maintaining that someone of ordinary skill in the art
12 would even be able to mould the shapes that are shown in the Reed reference
13 out of resin.

14 JUDGE HANLON: These factors, are you -- do you have a specific
15 cite in the specification for this, this discussion that you've just presented?

16 MR. BABINEAU: No, I, I don't have a specific cite to the
17 specification, but we would maintain that someone of ordinary skill reading
18 the specification would understand these implications of the shape.

19 JUDGE HANLON: Because I just noticed, I noticed that on page 4,
20 around line 25 of your specification, you indicate that the skin-penetrating
21 projecting plastic elements can be other than conical in shape and in various
22 other shapes.

23 MR. BABINEAU: Correct. It, it says that the conical shape and
24 sharp point is the penetration, but, but again, the application was written to
25 consider that it may be possible to, to make other shapes that would still fall
26 within the scope of the claims.

1 JUDGE WARREN: But I think your shapes, counselor, still have to
2 include a retention barb, do they not according to Claim 19?

3 MR. BABINEAU: Yes, they do have to, they do have to include a
4 retention barb, sir.

5 JUDGE WARREN: So, so perhaps in Claim 20, even though we've
6 indicated it may not be subject to consideration, there can't really be a
7 penetrating element that tapers continuously from base to tip without some
8 projection there for a, for a barb.

9 MR. BABINEAU: Yes, sir, and if you'd look at, at Figures 3a and 3b
10 of the specification, we, we maintain that, that the shapes that are shown
11 there would be, would be understood to be one of those that taper
12 continuously from base to tip. Even though they do have these, these small
13 discontinuities shown in the figure, that it would still be considered by
14 someone of ordinary skill in the scope of these words as being one that
15 tapers continuously.

16 JUDGE WARREN: So, so, in other words, that would constitute a
17 barb in your opinion -- 23a --

18 MR. BABINEAU: What is shown in Figures 3a and 3b --

19 JUDGE WARREN: -- 3a and 3b would constitute a barb?

20 MR. BABINEAU: A barb as is used in the claim, sir, is the, the little
21 things that are projecting off the sides of the --

22 JUDGE WARREN: All right --

23 MR. BABINEAU: -- main structure in Figures 3a and 3b.

24 JUDGE WARREN: Correct, 23a and 20a -- yes, okay.

25 MR. BABINEAU: Yes, sir, those, those would be considered to, to
26 be examples of barbs.

1 JUDGE GARRIS: Very good, counselor. Now, I have to say we,
2 we've very much appreciated your patience in the delay that we've had in
3 starting this hearing. And we have given you a substantial amount of time
4 beyond the 20 minutes that we typically give, and so, we have to now go
5 ahead and, and wrap up this hearing. Let me do so by asking my fellow
6 judges if they have any other questions. Judge Warren?

7 JUDGE WARREN: No questions.

8 JUDGE GARRIS: Judge Hanlon?

9 JUDGE HANLON: No.

10 JUDGE GARRIS: Sir, thank you very much for discussing these
11 issues with us and helping us to understand the issues that need to be
12 resolved for this appeal. Thank you, sir --

13 MR. BABINEAU: Thank you for your time.

14 JUDGE GARRIS: -- and good day to you all.

15 MR. BABINEAU: Thank you.

16 Whereupon, the hearing concluded at 9:57 a.m. on
17 December 11, 2008.

18